



INDIAN SCHOOL AL WADI AL KABIR

Class VIII, Mathematics

Worksheet 2- Factorisation

OBJECTIVE TYPE (1 Mark)

Q.1.	Which of the following is the common factor of $2x^2y$ and $30xy^2$?							
	A	7	B	xy	C	2xy	D	none of these.
Q.2.	Which of the following are the factors of $1 - x^2$?							
	A	$(x + 1)(x - 1)$	B	$(1 - x)(1 - x)$	C	$(1 + x)(1 + x)$	D	$(1 - x)(1 + x)$
Q.3.	Which of the following is the common factor of $5xy$, $3pqr$ and $4xyz$?							
	A	5	B	0	C	xy	D	1
Q.4.	Which of the following is quotient obtained on dividing $-18xyz^2$ by $-3xz$?							
	A	6yz	B	-6yz	C	$6xy^2$	D	6xy
Q.5.	Which of the following is quotient obtained on dividing $(x^2 - b)(x - a)$ by $(x - a)$?							
	A	$(x^2 - b)$	B	$(x + a)$	C	$(x^2 + b)$	D	$\frac{(x - b)}{(x + a)}$
Q.6.	Which of the following are the factors of $-20x^2 + 10x^4$?							
	A	$10x^2(x^2 + 2)$	B	$20x^2(x^2 - 1)$	C	$40x(x^2 - 1)$	D	$10x^2(x^2 - 2)$
Q.7.	The value of $0.645 \times 0.645 + 2 \times 0.645 \times 0.355 + 0.355 \times 0.355$ is							
	A	0	B	-1	C	2	D	1
Q.8.	A rectangle has area $x^2 + 13x + 40$ square feet. The width is $(x+5)$. What is the length?							
	A	$(x+3)$ feet	B	$(x+13)$ feet	C	$(x+8)$ feet	D	$(x+5)$ feet
Q.9.	Factors of $8x + 8y + x^2 + xy$							
	A	$(8 - x)(x - y)$	B	$(8 + x)(x + y)$	C	$(8 + x)(x - y)$	D	$(8-x)(x+Y)$
Q.10	When we factorise an expression, we write it as a _____ of factors.							
	A	Product	B	Sum	C	Difference	D	Quotient

DESCRIPTIVE QUESTIONS**Factorisation using identities**

Q11. $4y^2 - 12y + 9$

Q12. $49p^2 - 36$

Q13. $a^2 - 2ab + b^2 - c^2$

Q14. $m^4 - 256$

Q15. $x^2 + 6x + 9$

Factors of the form $(x + a)(x + b)$

Q16. $x^2 + 5x + 6$

Q17. $y^2 - 7y + 12.$

Q18. $z^2 - 4z - 12$

Q19. $m^2 + 9m + 20.$

Q20. $x^2 - 17x + 16$

Factorize each of the following by regrouping:

Q21. $x^2 + xy + 9x + 9y$

Q22. $6xy - 4y + 6 - 9x$

Q23. $x^3 - x^2y + 5x - 5y$

Q24. $x^3 + x^2 + x + 1$

Q25. $x^2 - x(a + 4b) + 4ab$

Division of Algebraic Expressions**Monomial by another monomial**

Q26. $15a^4b^3 \div 12a^2b$

Q27. $(-76a^2b^3c) \div (-19ab^2c)$

Q28. $-20x^4 \div 10x^2$

Q29. $28x^2y^2z^2 \div 14xyz$

Q30. $6x^3 \div 2x$

Polynomial by a monomial

Q31. $x^6 + 7x^5 - 5x^4$ by x^2

Q32. $a^2 + ab - ac$ by a

Q33.	$a^3 - a^2b - a^2b^2$ by a^2
Q34.	$4y^3 + 6y^2 + 6y$ by $2y$
Q35.	Divide $24(x^2yz + xy^2z + xyz^2)$ by $8xyz$
Algebraic Expressions- (Polynomial \div Polynomial)	
Q36.	$(7x^2 + 14x) \div (x + 2)$
Q37.	$44(x^4 - 5x^3 - 24x^2)$ by $11x^2(x - 8)$
Q38.	$z(5z^2 - 80)$ by $5z(z + 4)$
Q39.	$x^2 + 3x + 2$ by $(x + 1)$.
Q40.	$9p^2q^2(3z - 12) \div 27pq(z - 4)$